WINTER MOTH
SPRING CONTROL STEPS

MOTH ACTIVITY

EGGS ON TREES

CATERPILLARS

LEAF DAMAGE

STEPS YOU CAN TAKE

February – March

Remove sticky bands that were applied last Fall, taking care not to let trappings fall to ground. Deposit bands into a bag for disposal, make a note of trees with moth trappings, and examine trunk for eggs.

March - Early April

Top dress trees and shrubs with compost and keep ground moist. Take note of trees with birds feasting on overwintering insects, it may help identify infested trees. Remove any eggs and deposit into a solution of detergent to kill eggs.

April – Mid June

Continue to monitor as trees bud and leaves begin to emerge. It is at this time you may see tiny green inchworms munching on young leaves or "ballooning" on silken threads in the wind. Hopefully, the birds will see these as crunchy treats.

ADDITIONAL CONTROL STEPS

February – Mid March

Horticultural Oil (dormant oil) is used on egg masses or on larvae, but before leaves appear. It is a low-residual contact pesticide that inhibits the oxygen uptake by egg masses and clogs breathing pores of larvae.

- **Apply oil on trunks and branches of infested trees. It will kill larvae and visible eggs, but miss those protected under bark flaps and lichens.**
- **Its suggested use is when no rain is expected within the day, but before trees leaf out as it may kill tender young leaves.**
- **Horticultural oil is not recommended for use on conifers or to be used as a soil drench.**[1]

Treatment should be restricted to a few special trees or those that were already banded. Do not "spray the forest". When using, lay absorbent paper (newspaper will do) below spray area to protect the surrounding ground from excess oil and dispose of the paper in the proper manner.

April – May

Btk (*Bacillus thuringiensis var. kurstaki)* is a bacterium that kills caterpillar larvae, with a critical application time.

- **It is recommended for use on the younger larvae while they are free feeding on open leaves.**
- **Btk is a stomach poison so the insect must eat it for it to be effective. This means you must treat the caterpillar pests when they are actively feeding.**
- **The Btk spray must be deposited on the leaf surfaces after the eggs have hatched, but before the larger larvae move on to pupation sites. Once the caterpillars are fully-grown, they usually move off the surface of the plant and stop feeding, in preparation for making a cocoon.**

1. *Horticultural Oils,* www.MasterGardeneOnline.com. L. Chalker-Scott, PhD. Washington State University

WINTER MOTH FACTS


CATERPILLAR LARVA


PUPA


ADULT FEMALE


ADULT MALE

DID YOU KNOW…

- In Spring of 2012, Winter moth (Operophtera brummata) was identified defoliating hardwood trees in South Harpswell and in coastal communities from Kittery to Bristol.
- The pale green inchworm caterpillars are one of the first to hatch in the spring. They feed on both flower, leaf buds, and then on the expanding leaves.
- Treatments are only effective when eggs or caterpillars are present - February to June.
- The adult caterpillars finish feeding in mid June, spin cocoons and pupate in the ground until early winter.
- Keeping trees well nourished and well watered early in the season may help defoliated trees grow new leaves.
- Trees attacked by Winter moth will survive for many years. It takes a number of years of complete defoliation to kill most trees.
- Winter moth cocoons are in the soil from late May until late November. **Do not move plants or yard litter from infested areas!** Any plants or mulch moved from infested areas can have Winter moth in the soil.
- When using any pesticide, insect damage must be balanced with potential damage to the plant and other non-target species. **Btk kills all butterflies and moths. Horticultural oils are toxic to fish and shellfish – Do not use near the ocean or waterways.**

References:
Town of Harpswell: http://www.harpswell.maine.gov / **Left sidebar, Under Conservation Commission**
Maine Forest Service: http://www.maine.gov/doc/mfs/InvasiveThreats.htm
University of Massachusetts: http://extension.umass.edu/landscape/news/winter-moth-update-4262012